

53/ A bowl according to claim 36, characterized in that at least its inside face is coated in a layer of pyrolytic carbon or silicon carbide.

54/ The use of a bowl according to claim 53 for supporting a crucible in an installation for producing monocrystalline silicon ingots, the use being characterized in that a protective layer is interposed between the bowl and the crucible, and characterized in that a protective layer of thermostructural composite material is used.

REMARKS

This Preliminary Amendment puts the claims into proper form for examination. Note that claims 4-7, 9-11, 13-16, 18-28, 32, 35, 37-39 have been amended; new claims 41-54 have been added; and claims 1-3, 8, 12, 17, 29-31, 33, 34, 36, and 40 remain unchanged. Kindly calculate the filing fee based on the amended claims.

This Application contains a translation of the title and abstract as they were when originally filed by the Applicant. No account has been taken of any changes that may have been made

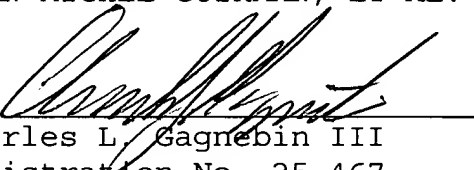
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subsequently by the PCT Authorities acting ex officio, e.g.,
under PCT Rules 37.2, 38.2, and/or 48.3.

The Examiner is encouraged to telephone the undersigned
attorney to discuss any matter which would expedite allowance of
the present application.

Respectfully submitted,

JEAN-MICHEL GUIRMAN, ET AL.

By: 
Charles L. Gagnebin III
Registration No. 25,467
Attorney for Applicants

WEINGARTEN, SCHURGIN, GAGNEBIN
& HAYES LLP
Ten Post Office Square
Boston, MA 02109
Telephone: (617) 542-2290
Telecopier: (617) 451-0313

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Red-Lined claims for the Examiner's convenience:

4/ A method according to claim 2 ~~or claim 3~~, characterized in that the unidirectional sheets are bonded to one another by knitting a thread which passes from one side of the fabric to the other.

5/ A method according to claim 2 ~~or claim 3~~, characterized in that the unidirectional sheets are bonded together by needling.

6/ A method according to claim 2 ~~or claim 3~~, characterized in that the unidirectional sheets are bonded together by stitching with a thread that passes from one side of the fabric to the other.

7/ A method according to ~~any one of claims 2 to 6~~, characterized in that the plies are superposed by being mutually angularly offset around an axis passing through the bottom of the bowl.

9/ A method according to ~~any one of claims 1 to 8~~, characterized in that plies are used formed of carbon fiber yarns that are free of surface functions.

10/ A method according to ~~any one of claims 1 to 8~~,
characterized in that plies are used formed of carbon fiber
yarns provided with an interphase coating of pyrolytic carbon.

11/ A method according to ~~any one of claims 1 to 10~~,
characterized in that the superposed plies are bonded together
by needling so as to ~~transfer~~ transfer fibers taken from the
plies transversely thereto.

13/ A method ~~according~~ according to ~~any claim 11 or claim 12~~,
characterized in that the density of fibers transferred
transversely relative to the plies is controlled throughout the
thickness of the preform.

14/ A method according to ~~any one of claims 1 to 10~~,
characterized in that the superposed plies are bonded together
by stitching.

15/ A method according to ~~any one of claims 1 to 10~~,
characterized in that the superposed plies are bonded together
by implanting threads transversely relative to the plies.

21/ A method according to ~~any one of claims 1 to 19,~~
characterized in that the deformable two-dimensional fiber plies
used are whole, being free from cutouts or slots, so as to

obtain a complete one-piece bowl preform, a hole is made through the bottom of the preform prior to densification of the preform by chemical vapor infiltration, and the hole is subsequently closed by a plug.

22/ A method according to ~~any one of claims 1 to 19~~, characterized in that the deformable two-dimensional fiber plies used are whole, having a substantially central opening, the plies are superposed on the former so that their openings are in alignment, thereby obtaining a bowl preform with a hole through the bottom of the preform constituted by the aligned openings in the plies, the preform is densified by chemical vapor infiltration, and the hole is subsequently closed by a plug.

23/ A method according to ~~claim 21 or claim 22~~, characterized in that a plug of thermostructural composite material is used.

24/ A method according to ~~any one of claims 21 to 23~~, characterized in that an additional step of chemical vapor infiltration is performed after the plug has been put into place in the hole formed in the bottom of the preform.

25/ A method according to ~~any one of claims 1 to 24~~, characterized in that after densification, purification heat treatment is performed at a temperature lying in the range 1600°C to 2700°C.

26/ A method according to ~~any one of claims 1 to 25~~, characterized in that after densification, a coating of pyrolytic carbon is formed on the bowl.

27/ A method according to ~~any one of claims 1 to 25~~, characterized in that after densification, a coating of silicon carbide is formed on the bowl.

28/ A method according to ~~any one of claims 21 to 27~~, characterized in that the inside face of the bowl is lined with a protective coating.

32/ A bowl according to claim 30 ~~or claim 31~~, characterized in that the fiber plies are formed of unidirectional sheets superposed in different directions.

35/ A bowl according to claim 33 ~~or claim 34~~, characterized in that the matrix is made at least in part out of ceramic.

37/ A bowl according to ~~any one of claims 30 to 36~~,
characterized in that at least its inside face is coated in a
layer of pyrolytic carbon.

38/ A bowl according to ~~any one of claims 30 to 36~~,
characterized in that at least its inside face is coated in a
layer of silicon carbide.

39/ The use of a bowl according to ~~any one of claims 30 to 38~~
for supporting a crucible in an installation for producing
monocrystalline silicon ingots, the use being characterized in
that a protective layer is interposed between the bowl and the
crucible.